7 Profiles in Natural Resource Leadership

The National Park Service is proud to honor its employees who make important contributions to the perpetuation of park natural resources. In this chapter we recognize winners of the Director's Awards for Natural Resource Stewardship. Given in 2005 for work performed in 2004, these awards recognize the outstanding natural resource conservation achievements of two park superintendents, two resource managers, a facility manager, a natural resource researcher, and a program administrator. Though the awards celebrate individual achievements, the award winners call attention to teamwork, professionalism, and a shared sense of purpose among park staffs—critical qualities in the successful management of national parks—in the profiles that follow. To make these qualities come together successfully, however, means that each of the awardees also shares a special attribute with the others: leadership. As a group they have succeeded in articulating a compelling vision of park resource management and protection. They have integrated ideas and motivations to advance resource understanding. They have overcome obstacles and drawn support for protecting the values and natural resources of the national parks. Courageous and innovative, they are leaders in natural resource stewardship.

"We National Park men and women know that nature's work as expressed in the world-famous regions in our charge cannot be improved upon.... We have the spirit of fighters, not as a destructive force, but as a power for good. With this spirit each of us is an integral part of the preservation of the magnificent heritage we have been given." — **Horace M. Albright**

Gutsy leadership preserves natural resources at two very different parks

THE DIRECTOR'S AWARD for Superintendent of the Year for Natural Resource Stewardship recognizes outstanding contributions in natural resource management by a National Park Service (NPS) superintendent. The award was created not only to recognize but also to foster innovative resource management support and direction. Harder qualities to measure are an unwavering commitment to the NPS mission and an extraordinary ability to navigate complex and highly contentious issues, which are the hallmarks of the joint recipients of the 2004 award, given in 2005: Tomie Lee and Paul Hedren.

Superintendent Tomie Lee credits her great staff and the support of both the regional and national NPS offices for her ability to put park resources first. "Glacier Bay brings out a deep commitment to place in the people who work here. Together we are doing everything that we can to keep this wonderful place as pristine as we found it," says Tomie proudly.

Tomie Lee and Paul Hedren demonstrated gutsy leadership in the face of tremendous challenges in order to preserve the natural resources in their care.

As superintendent of Glacier Bay National Park and Preserve, Alaska, Tomie has been at the center of a number of controversial issues, including the creation of a commercial fishing compensation plan. Commercial fishing in the park had been hotly debated for 40 years largely because of its economic importance to fishers and the desire of the National Park Service to protect marine resources in designated wilderness waters. To address the conflict, Congress passed legislation in 1998 that phased out commercial fishing in Glacier Bay proper in exchange for allowing commercial fishing to continue in the outer waters of the park and the payment of some $23 million to the potentially affected parties. Under Tomie's leadership the park developed a fair and final compensation program by working closely with fishers and the State of Alaska. The effort resulted in payments in 2003 and 2004 that were crucial to holding together the fragile coalition that had resolved the park's most long-standing and contentious resource issue.

Tomie's commitment to resource protection was evident in the development of a vessel management plan and preparation of an environmental impact statement (EIS) that examined providing park wilderness through a land exchange for a hydropower project. Despite vociferous opposition, park staff presented a plan that sought vessel management changes designed to conserve marine life, especially the endangered humpback whale (*Megaptera novaeangliae*) and Steller sea lion (*Eumetopias jubatus*), and included speed restrictions, pollution controls, and quotas on the number of vessels, including cruise ships. In the case of the land exchange, the legislation that would make it possible required an EIS showing that such an exchange would have no adverse impact on the park. In the face of political pressure, Superintendent Lee insisted that the document thoroughly explore and fully disclose potential effects on the park.

Superintendent Tomie Lee (holding award) and her staff.

Superintendent Paul Hedren.

Navigating controversial issues to ensure the protection of park resources "takes real dedication and understanding from everyone on the team," notes Superintendent Lee. She adds, "Clear goals are essential and everybody has to work toward the same thing, communicate those goals, and live up to the promises made."

The other award winner for the year is Paul Hedren, the superintendent of the Missouri National Recreational River. Composed of two separate stretches of the Missouri River, the park encompasses some 126 miles (203 km) of Missouri River and tributaries and some 34,000 acres (13,770 ha) of Nebraska and South Dakota. The Missouri National Recreational River is tiny in comparison with the 3.3 million–acre (1.3 million ha) Glacier Bay National Park and Preserve, but its resources are just as worthy of protection. Like Superintendent Lee, Paul resolved to protect park resources when he challenged a well-established bank stabilization program and a plan to create artificial sandbar habitat in the park.

Paul found himself in the unenviable position of trying to balance seemingly contradictory legal mandates. On the one hand, the park was added to the National Wild and Scenic Rivers System in 1978, and the Wild and Scenic Rivers Act prohibits the construction of any water resource project that would have a direct and adverse effect on the values for which the park was established. These values include the free-flowing condition of the river, recreational opportunities, and fish and wildlife. On the other hand, the US Army Corps of Engineers (the Corps) is charged with implementing certain bank stabilization in the park (itself a congressionally permitted but limited compromise to the Wild and Scenic Rivers Act) and creating sandbar habitat for endangered terns and threatened plovers. As originally proposed, both efforts would require the use of heavy equipment that could damage wildlife habitat and species, disrupt recreational activities, and change the park's shoreline unnaturally.

"We were and are all for the threatened and endangered birds, but my staff and I were also concerned about other indigenous [species]

like mussels, which are an indicator species and relatively rare in this part of the river. We felt pretty strongly that the Organic Act and the Wild and Scenic Rivers Act required the protection of *all* park resources and that the goals the Corps was trying to reach could be accomplished in many ways," says Superintendent Hedren.

For failing to sign off on the solutions as proposed by the Corps, Paul was labeled "inflexible," "too passionate," and "unable to compromise." Nevertheless, he initiated an effort that included inventory, research, education, and policy review to find less intrusive solutions. As a result the park has been able to identify areas where certain stabilization efforts will be most successful and perhaps even beneficial, and also to champion alternative bank stabilization techniques. Similarly, the park identified less invasive methods for creating sandbar habitats, such as modifying the flow regime and removal of early successional vegetation on existing islands through mowing, disking, and applying herbicides.

"I'd reached a stage in my career where I felt free to do the right thing, despite the consequences," says Paul, "and the right thing to do was to support the staff and take the heat to protect them. Even in hindsight, I am proud that I was there."

Above all, in winning this year's award, Superintendents Tomie Lee and Paul Hedren demonstrated gutsy leadership in the face of tremendous challenges in order to preserve the natural resources in their care. But as they pointed out themselves, these award winners are reflective of the many men and women of the National Park Service who are deeply committed to the agency's mission and to doing the right thing. ■

—Lara Schmit, Associate Editor, *Natural Resource Year in Review*, contractor to the National Park Service

Ed Walls: A leader in environmental management

Ed Walls, chief of Facility Management, Point Reyes National Seashore, California

Point Reyes National Seashore is a "Center for Environmental Innovation." National Park Service headquarters in Washington, DC, designated Point Reyes as a park that is a showcase of sustainable practices, largely because of the talents and dedication of Edward J. Walls, chief of Facility Management at the park and recipient of the 2004 Director's Award for Natural Resource Stewardship through Maintenance, given in 2005. Ed has been part of what he calls a "culture change" at the park, an approach to natural resource management that emphasizes, as he says, "conserving energy and stepping lightly on the landscape."

Innovation can be difficult if park staff is reluctant to make changes. A 2003 workshop called "Greening of Point Reyes" gave park staff an opportunity to embrace the concept of doing things differently. Ed took the roles of both coordinator and cofacilitator for the event, sponsored by the National Park Service and the US Environmental Protection Agency, to develop a vision of goals and strategies for the next five years for the park and the local community. One outcome was that park staff had the opportunity to participate in shaping the vision of the park's future and thus felt ownership in the greening initiative and more receptive to changes.

Those changes include the capacity to generate 25 kilowatts per hour, approximately 8% of the park's total energy needs, from five solar power systems installed at sites throughout the park, saving $9,000 to $10,000 a year on fossil fuel costs. The park's fleet now includes six electric and two hybrid vehicles, an electric charging station, and a propane gas station to service propane-fueled trucks. Gasoline-powered vehicles are being converted to run on re-refined oil, and the hydraulics stream in heavy equipment now runs on vegetable oil rather than petroleum-based oil. The park uses only green custodial products, recycled paper, and recy-

cled plastic lumber for deck treads and picnic tables. Selectively placed lighting retrofitted with compact fluorescent tubes now maintains the dark of the night sky. These innovations came about under Ed's leadership in obtaining funding from and working with many different government and corporate sources. His efforts have led to the park's selection as one of two prototype areas in the Pacific West Region for its environmental management system because of its exemplary practices of recycling, purchasing, hazardous materials handling, alternative fuel use, and green design.

Point Reyes is a leader in natural resource restoration and sustainability because of the vision of Ed Walls and the park staff who works with him.

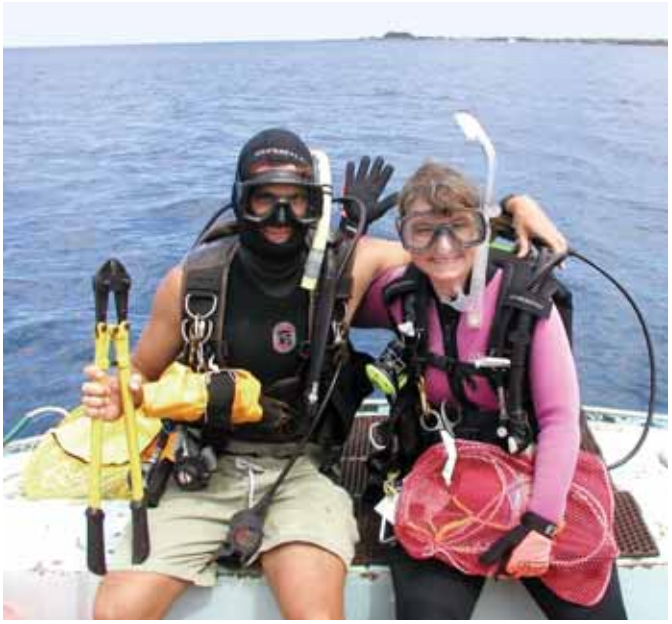
Ed has also played an important role in the park's natural resource restoration. His crews have restored creek habitat at several locations, eliminating barriers to migration of coho salmon and steelhead trout (both on the federal list of threatened and endangered species) and opening areas to spawning. Larger projects are the coastal watershed restoration in Drake's Bay, the Giacomini marsh restoration that will increase central California's coastal wetlands by 12%, and dune restoration. Removal of exotic grasses from one dune area has resulted in an increase of native species and use of the area by the western snowy plover, a federally listed shorebird (see article, page 91). Work in the dunes is especially challenging because it requires heavy equipment without damaging environmentally sensitive dunes or the endangered species they harbor. Creek, marsh, and dune restoration techniques developed at Point Reyes are now being used at other parks and are models for other agencies, including California State Parks. Point Reyes is a leader in natural resource restoration and sustainability because of the vision of Ed Walls and the park staff who works with him. ■

—Betsie Blumberg, Associate Editor, *Natural Resource Year in Review*, under cooperative agreement with the National Park Service

Protecting small-park resources from Big Island development in Hawaii

PROTECTING INVALUABLE SMALL-PARK RESOURCES from burgeoning Big Island development, Sallie Beavers, marine ecologist at Kaloko-Honokōhau National Historical Park, credits teamwork. "I'm just the worker bee in the background helping out. It's a complete team effort here." Sallie's leadership role in this team effort earned her the 2004 Trish Patterson–Student Conservation Association Award for Resource Manager in a Small Park, presented in 2005.

Originally from New Orleans, Sallie joined the park team in 2001 and wasted no time getting down to the business of protecting the park's marine and terrestrial resources. At the time, park resource managers were in the process of presenting their concerns to the Hawaii Land Use Commission regarding a proposed industrial park upslope of Kaloko-Honokōhau. Pollutants from the site could impact native species and water quality in the marine and brackish water environments at the park. Sallie presented research findings and expert testimony that helped make the case for park resource protection. "We didn't try to stop the development; we just wanted conditions imposed to protect our resources. We won," Sallie says. "It was a landmark case in Hawaii and it was all because the superintendent, Geri Bell, and the resource manager, Stan Bond [who won this award in 2002], saw the potential threats and got involved to protect this park." Participating in the effort



Sallie Beavers (right) and University of Hawaii graduate student Tim Clark prepare to install equipment to monitor movements and habitat use of green sea turtles, manta rays, jack trevally, and tiger sharks at Kaloko-Honokōhau. The project is a joint effort among the National Park Service, the University of Hawaii, and the Hawaii Division of Aquatic Resources.

reinforced her commitment to protecting park resources. "It also made me see that I can make a difference and be a part of something larger than myself."

Kaloko-Honokōhau, a small historical park increasingly surrounded by development, is only 1,160 acres (470 ha) in size. However, it is home to numerous cultural and natural resources, including a unique ecosystem of anchialine (brackish water) pools, a pristine coral reef system, two fishponds, and many marine and terrestrial species (11 of which are listed as threatened or endangered). Sallie plays an instrumental and varied role in protecting these resources. "We're a small park, so I have to wear more than just the marine ecologist hat. My job has evolved into anything and everything that has to do with land-sea interactions that may affect water resources."

A marine research specialist, Sallie has built a highly effective coral reef program that analyzes and monitors groundwater flowing into the coastal environment. Native Hawaiian science students are involved in the program as interns, a partnership that is important for the park. Sallie's work has also focused on developing a program to remove invasive algae from park waters, and instituting a long-term monitoring program to assess green sea turtle health. Her proposals for water quality projects consistently compete well for funding and have been used as models on the national level. She has also contributed scientific research on a broad range of water ecology topics and has developed a network of partnerships with universities, government agencies, and nonprofits to expand park research and preservation efforts.

"My job has evolved into anything and everything that has to do with land-sea interactions that may affect water resources."

Sallie is passionate about protecting and enhancing park resources, even when the obstacles seem overwhelming. "Management policies tell us to, when appropriate, go outside park boundaries to work with our neighbors in order to protect the resources. That's certainly being done here. It would have been easy to say, 'Oh well, gosh, there's development coming in. What are we going to do?'" Instead, she has focused on doing her day-to-day job. "It's hard to drive down the road and see the bulldozers and know what's coming. But it's motivating for all of us here to see that we can do our job and protect the [park] resources." ■

—Kristina Woodall, Associate Editor, *Natural Resource Year in Review*, contractor to the National Park Service

"Tromping around on glaciers": A profile of research ecologist Dan Fagre

DAN FAGRE HAS CAUSED A CHANGE of thinking at Glacier National Park, Montana. This USGS ecologist has helped park staff and resource managers around the world view mountain ecosystems more dynamically and recognize the impacts of climate change on natural resources. As stated in his nomination for the 2004 Director's Award for Natural Resource Research, "Dan has demonstrated vision and innovation in guiding the development of powerful new tools and capabilities for understanding the structure and function of mountain ecosystems and has been instrumental in applying these capabilities to new problems of national and international significance."

Dan received this prestigious NPS award for his research, which encompasses ecosystem modeling, changes in tree line (alpine ecotones), snow modeling, snow chemistry, and glacier-climate dynamics. He says the breadth of his research is "a sign of somebody out of control," but his results attest to a systematic, integrated way of thinking that reveals connections on a global scale. Indeed, researchers from around the world consider the model that Dan formulated at Glacier National Park—one of the longest-running, global-change research programs in a national park—worthy of emulation on an international scale. This research program is an innovative integration of glaciology, plant succession, climatology, and other disciplines to explicitly examine the influence of climatic change on an entire mountain ecosystem. It involves numerous collaborators and yields accessible and relevant information that can help managers and the public make informed decisions. In addition, his research provides baseline data that underpin the NPS Inventory and Monitoring Program.

The most immediate and direct application of Dan's research is the use of climate and snowpack information for both predicting conditions and scheduling work on the opening of the Going-to-the-Sun Road, an alpine highway that crosses the Continental Divide in Glacier National Park. This enables the maintenance division to work more safely and efficiently: staff does not start plowing the road until after maximum snow accumulation has occurred or until after the peak of avalanche hazards has passed. The avalanche research helps to improve long-range planning of operations and understanding of the many ecological effects of frequent snow avalanches.

Dan considers himself to be on an intellectual adventure that is contributing to scientific and public understanding of mountain ecosystems.

In addition to his scientific achievements, the Intermountain Regional Office selected Dan as a regional contender for the national award because of "his ability to 'outreach' to park staff and visitors." Indeed, the public has seen Dan on CNN, Fox News, ABC, NBC, and in documentaries on the Discovery, Travel, and National Geographic Channels. "Frankly," Dan says, "the main way that this has occurred is being willing to take the time to talk with the media." He goes on to say that not all scientists are willing to do this because the scientific community often does not value such efforts and some scientists fear being misquoted. However, Dan believes that the opportunity to convey science in an enthusiastic way outweighs the risks. In short, he holds that "science can be a very exciting story to tell."

One such story links the Pacific Decadal Oscillation—a 20- to 30-year climate cycle that influences snowpack—with hydrology, formation of avalanche chutes, habitat creation for grizzlies, plant succession, nutrient transfer to rivers, and effect on aquatic invertebrates. No wonder Dan sometimes feels "all over the map." Yet these types of connections are the reason he first started "tromping around on glaciers." His interest in finding and explaining connections leads to documenting the relationships and responses between the mountain ecosystem of Glacier National Park and other similar systems throughout the globe.

Dan considers himself to be on an intellectual adventure that is contributing to scientific and public understanding of mountain ecosystems. He feels privileged and content to be the global climate change research coordinator at the Glacier Field Station of the USGS Northern Rocky Mountain Science Center. According to his nominators, during his 14 years in this capacity Dan has "developed a program and a presence that the park cannot live without." ■

—Katie KellerLynn, Associate Editor, *Natural Resource Year in Review*, under cooperative agreement with the National Park Service

Dan Fagre, research ecologist, Glacier National Park, Montana.

Resource manager for the ages: Yellowstone's John Varley

By Tom Olliff and Paul Schullery

IN MARCH 2005, Yellowstone Center for Resources director John D. Varley accepted the 2004 Director's Award for Natural Resource Management. John was recognized both for recent accomplishments and for the scope of his contributions to the National Park Service (NPS) throughout the course of his 30-year NPS career.

In 2004 he initiated Yellowstone's Molecular All Taxa Biodiversity Inventory (see article, page 63) and served as the project coleader on the Servicewide Benefits-Sharing Environmental Impact Statement, which could harness the power of science to assist the National Park Service in meeting its mission for resource stewardship and preservation.

In accepting the Director's Award for Natural Resource Management in March 2005, John Varley explained that his experience of more than 40 years in natural resource management had taught him "something about how to get things done in bureaucracies." He said, "I call them the four 'Ps,'" and they are "*passion*, because it's important to be passionate about your work; *patience*, because as we all know nothing happens too fast in government; *persistence*, because anything important to do has many barriers to overcome; and *partnerships*, because bureaucracies don't seem to want to move without the effort of an entire team." Sage advice.

For the past three decades John has been an acknowledged leader of NPS resource stewardship, a position he has earned by pushing for innovative resource programs on the ground, where they count. He has led several remarkable resource initiatives, including gray wolf restoration, putting the 1988 Yellowstone fires into ecological context, and being the primary architect in the 1970s for radical changes in Yellowstone's fishing regulations, many of which have been adopted nationwide. John also firmly established science and research as a foundation for resource management in Yellowstone through the creation of the Yellowstone Center for Resources (YCR) in 1993.

The establishment of the Yellowstone Center for Resources represented a new model for practicing natural and cultural resource management and research in Yellowstone. It improved professionalism in the natural resource arena and pieced together the park's long-neglected and disparate cultural functions into a cohesive professional team. John has also created a variety of professional vehicles for improving communication among researchers, resource managers, and the public. The flagship result of this effort is a series of well-attended biennial scientific conferences on the greater Yellowstone ecosystem, sponsored by the National Park Service in partnership with other agencies, universities, and professional societies. The eight conferences and seven large proceedings these partners have produced are perhaps the single most significant new source of scientific information on greater Yellowstone in the history of this region.

Among the other initiatives John has developed is the most aggressive and professional resource information program in the National Park Service. Its staff organizes the conferences and has produced many large milestone reports and books as well as the popular quarterly magazine, *Yellowstone Science*.

As YCR director, John manages some of the most high-profile, controversial, politically encumbered, and complex resource programs in the National Park Service, including joint bison management with the State of Montana, grizzly bear conservation, wolf reintroduction and recovery, elk management on Yellowstone's northern range, predicting hazards from the Yellowstone volcano, protecting Yellowstone's geothermal features, conserving the Yellowstone cutthroat trout, protecting aquatic and terrestrial resources from introduced exotic species, managing the natural resource aspects of wildland fire, and monitoring the impacts of oversnow vehicles on natural resources.

[John] has led several remarkable resource initiatives, including gray wolf restoration, putting the 1988 Yellowstone fires into ecological context, and being the primary architect in the 1970s for radical changes in Yellowstone's fishing regulations.

The thread that runs through all these accomplishments is John's passion for science and talent for applying scientific solutions to resource stewardship problems. In each of these cases he has let science lead the way. He has used it as the most fundamental platform to improve resource preservation, and in so doing has changed public attitudes, enabled the positive evolution of park and NPS policies, and facilitated the park's ability to initiate actions to solve real-time resource problems. John has earned a legacy that few will ever claim: he has made a lasting change in the way the National Park Service conducts the business of resource stewardship. Former Yellowstone superintendent Mike Finley summed it up: "John … is a forward-thinking and visionary kind of guy. He understands the language of science and he rolls it into practical action." ■

tom_olliff@nps.gov
Chief, Branch of Natural Resources, Yellowstone Center for Resources, Yellowstone National Park, Wyoming

paul_schullery@nps.gov
Writer-Editor, Yellowstone Center for Resources, Yellowstone National Park, Wyoming

"Getting things done": The productive work life of Abigail Miller

IN 18 YEARS OF WORKING for the National Park Service, Abigail Miller has never thought of herself as a technical specialist, the kind of person to whom the Director's Award for Professional Excellence in Natural Resource Stewardship is typically given. "I'm a big-picture person," she says, "with a tendency toward pragmatism, and interested in tweaking processes to get things done." Nevertheless the National Park Service honored her with this prestigious award in 2005, recognizing her gifts as a manager and leader of a broad variety of natural resource programs and initiatives that have left the National Park Service much better off with respect to its natural resource conservation mission than when she first came to the organization as a program coordinator in 1988. She retired in 2005 after serving for 10 years as deputy associate director for Natural Resource Stewardship and Science.

Abby combines the characteristics of a visionary with those of a detail person, skills that helped guide the National Park Service through a period of tremendous growth for natural resource stewardship programs in the 1990s and early 2000s. During her tenure the Park Service implemented inventory and monitoring, instituted numerous professional and integrative business practices as part of the highly successful Natural Resource Challenge initiative, improved the National Park Service's performance-based accountability for natural resource management activities, and helped focus fiscal resources where they were most needed. She attributes her success in these areas to her expertise in the federal budget process. She says, "I was a GS-5 when I figured out that you need an understanding of the budget process in order to get things accomplished in government."

Abby regards helping to strengthen the professionalism of the natural resource workforce as the most significant development in her career with the National Park Service.

She also credits her success to focusing on the big picture, paying attention to the mechanisms required to get things accomplished, and involving those affected by or having an interest in the task at hand. About 10 years ago, Abby and a colleague in the NPS Budget Office discussed the need to expand professional natural resource staffs, particularly at small parks where filling scientist positions had lagged behind other needs. From the time of this budget initiative in FY 1993–1994 and the Natural Resource Challenge as of 2003, professional natural resource staff in the Park Service more than doubled. "The level of professionalism is much higher now," she observes, careful to point out that she alone was not responsible for the change. "Instead of being a small, somewhat isolated program, the natural resource management program has a real presence and is widely recognized as effective." Along with the Inventory and Monitoring Program, which operates 30 of 32 planned monitoring networks (see article, page 27), Abby regards helping to strengthen the professionalism of the natural resource workforce as the most significant development in her career with the National Park Service.

Abby Miller, winner of the Director's Award for Professional Excellence in Natural Resource Stewardship.

Abby hopes that NPS employees will learn from the success of the Natural Resource Challenge and cites involving park superintendents and the deputy director as critical in its success. "What made this initiative work was that it became a National Park Service priority, not just a natural resource management priority," she says. "The more you broaden support for initiatives and link them to a wide variety of park management concerns, the better off you'll be."

In nominating her for this award, Abby's coworkers could have been describing the conductor of an orchestra, one who also plays many of the instruments. Abby kept track of the professional activities, specialties, and information needs of hundreds of people around the country in the National Park Service and partner organizations, Congress and the Office of Management and Budget, and other key contacts. She gave input on many important management issues, suggested new approaches to business practices, directed change, and kept her staff informed and prepared. Her skills in budget formulation, project management, accountability, and policy were all very important in keeping processes moving ahead in a timely fashion. The result was a symphony that Abby was an important part of conducting, one that will be recognized for decades as an especially productive period for strengthening natural resource management programs in the National Park Service.

Abby credits the mission of the National Park Service as a very motivating force in her work life and still has a passion to visit national parks. Since retiring and moving to Vermont in March 2005, she has been to eight "new" parks, including Women's Rights National Historical Park, Hubbell Trading Post National Historic Site, and Joshua Tree National Park. Though still adjusting to the new change of pace, Abby is productive and energized. She serves as the program chair for the 2006 biennial conference of the George Wright Society and is involved in several volunteer organizations. She and her husband, Bob, enjoy hiking, cross-country skiing, and activities with friends, and she is busy reading all the books she received as retirement gifts, and then some. ■

—Jeff Selleck, Managing Editor, *Natural Resource Year in Review*